Section A.

Technical Notes

Scope of the Survey

Data for the National Science Foundation's (NSF) fiscal year (FY) 2001 report on research and development (R&D) expenditures were collected from 609 institutions of higher education in the United States and outlying areas. These institutions have doctoral programs in science and engineering (S&E), are historically black colleges or universities (HBCUs) that expend any amount of separately budgeted R&D in S&E, or are master's or bachelor's degree-granting institutions that expend at least $150,000 in separately budgeted R&D in S&E.

In addition, the survey coverage was expanded to collect information on R&D about each of the Nation's 36 federally funded research and development centers (FFRDCs). Of these 36 FFRDCs, 16 are administered by academic institutions, 16 are administered by nonprofit organizations, and 4 are administered by industrial organizations. However, data for those FFRDCs administered by nonprofit organizations and those administered by industrial organizations in FY 2001 are not included in this report.

To qualify, an FFRDC must be engaged in basic or applied research, development, or management of R&D activities, and the results of these activities must be directly monitored by the Federal Government—usually a single agency—in a relationship expected to be maintained on a long-term basis. The center must be operated, managed, and administered by either a university or consortium of universities as an autonomous organization or as an identifiable separate operating unit of its parent institution. Finally, 70 percent or more of the center's financial support must be received from the Federal Government.

Although the same survey form (NSF Form 411) is used to collect data from both academic institutions and FFRDCs, the resulting data are presented separately in this report. The survey population was reviewed prior to electronic transmission of the questionnaires to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine if changes had occurred (i.e., in highest degree granted or in terms of school openings, closings, or mergers).

FY 2001 Survey Frame Design

The Academic R&D Survey is a census of the full population of eligible academic institutions. NSF has also conducted a population review each year to ensure that all institutions that meet the inclusion criteria are surveyed. This review is based on the survey frame design developed in FY 1998:

- All S&E doctorate-granting institutions and all HBCUs are surveyed.
- All S&E master's and bachelor's degree-granting institutions that reported at least $150,000 in separately budgeted R&D expenditures in S&E in the previous fiscal year are surveyed. NSF contacted the master's and bachelor's degree-granting institutions that were in the population prior to the census coverage to determine if they met the $150,000 expenditure criterion. Institutions with a minimum of $150,000 were added or retained in the survey population.

In FY 2001, NSF conducted a population review using the above criteria. As a result of adding and deleting institutions from the survey population to comply with the inclusion criteria, the overall number of institutions surveyed decreased from 623 in FY 2000 to 609 in FY 2001.

Survey Instrument

Most major R&D performers have incorporated into their record-keeping systems the data that are essential to complete this survey, thereby ensuring a consistent format from one year to the next. Such consistency yields the most useful statistics for time series. As a rule, information to complete this questionnaire is found within the institutions' year-end accounting records.

The survey questionnaire consists of five main items:

Item 1 is a request that institutions report their total current expenditures for separately budgeted science and engineering R&D for all activities specifically organized to produce research outcomes and either commissioned by an agency external to the institution or separately budgeted by an organizational unit (i.e., research centers) within the institution, by source of funds. In addition, schools are asked to provide the percentage of the total and the percentage of the federally financed expenditures that are considered basic research. Also included are research funds for which an outside organization, educational or other, is a subrecipient. Care should be observed when interpreting data on source of funds; for example, industry R&D support is limited to grants and

contracts for R&D activities from profit-making organizations. Total industry funds excludes research funded through unrestricted accounts and from corporate foundations, endowments, and fellowships to students; those funds would be included in an institution's own funding totals. An increasing number of institutions have linkages with industry and foundations via subcontracts, thus complicating the identification of funding source. In addition, institutional policy may determine whether unrestricted State support is reported as State or as institutional funding.

Item 1A, added in FY 1996, is a request for total and federally financed current fund expenditures for separately budgeted science and engineering R&D passed through the institution to "higher education" and "other" subrecipients.

Item 1B, added in FY 2000, is a request for total and federally financed current fund expenditures for separately budgeted science and engineering R&D received by the institution as a subrecipient. Schools are asked to break out the source of these funds from "higher education" and "other" passthrough entities.

Item 2 is a request for total and federally financed current fund expenditures for separately budgeted R&D activities by detailed S&E fields. In the FY 1997 questionnaire, a subfield of bioengineering/biomedical engineering was added under Engineering. When interpreting these data at the detailed discipline level, users should keep in mind that there is considerable interdisciplinary and multidisciplinary activity.

Item 3 is a request for the portions of total and federally financed expenditures reported in items 1 and 2 that were used for the purchase of research equipment out of current funds. This portion includes all research equipment purchased under sponsored research project awards and disbursed in the same detailed disciplines as in item 2. These data are of special interest to Federal and institutional policy makers in determining current funding levels for scientific research instrumentation.

ITEM 1A ANALYSIS

Item 1A was completed by 89.5 percent of the respondents. The total R&D expenditures passed through to subrecipients, $1.6 billion, represented 6.0 percent of item 1A respondents' total R&D expenditures and 5.0 percent of all separately budgeted R&D in FY 2001 (table 1). The doctorate-granting institutions reported a higher percentage of passthrough funds than the nondoctorate-granting institutions. Item 1A respondents from doctorate-granting institutions reported that $1.6 billion (6.1 percent) of their total R&D expenditures were passed through to subrecipients, versus $17 million (4.1 percent) of item 1A nondoctorate-granting respondents. Item 1A respondents from private institutions reported a higher percentage (7.1 percent) of passthrough funds than those from public institutions (5.5 percent).

Respondents to this question reported $1.4 billion in Federal R&D funds passed through to subrecipients. This amount represented 8.7 percent of the Federal support reported by item 1A respondents and 7.2 percent of the $19 billion in total Federal support (table 2).

Table A-6 shows the total amount of R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts. Table A-7 shows the total amount of Federal R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts.

Table 1. **FY 2001 item 1A summary of total academic R&D expenditures**

Highest degree and control	All respondents' total R&D[1]	Item 1A respondents' total R&D[2]	Total R&D expenditures passed through to subrecipients		
			Total[3]	Educational subrecipients	Other subrecipients
	[Dollars in thousands]				
All academic institutions.....	32,570,113	26,903,690	1,626,981	793,483	553,516
Doctorate.....	32,106,175	26,485,193	1,610,011	784,811	545,515
Non-doctorate.....	463,938	418,497	16,970	8,672	8,001
Public.....	22,245,928	17,318,792	946,678	450,465	358,705
Private.....	10,324,185	9,584,898	680,303	343,018	194,811

[1]This total is the amount prior to imputation for nonrespondents.

[2]Item 1A measures the amount of R&D expenditures passed through the institution to subrecipients.

[3]Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data passed through to subrecipients.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table 2. **FY 2001 item 1A summary of Federal academic R&D expenditures**

Highest degree and control	All respondents' Federal R&D[1]	Item 1A respondents' Federal R&D[2]	Federal R&D expenditures passed through to subrecipients		
			Total[3]	Educational subrecipients	Other subrecipients
	[Dollars in thousands]				
All academic institutions.....	19,077,450	15,869,304	1,379,918	707,462	437,576
Doctorate.....	18,786,515	15,605,164	1,365,908	700,748	430,577
Non-doctorate.....	290,935	264,140	14,010	6,714	6,999
Public.....	11,622,399	9,009,243	798,065	394,238	298,322
Private.....	7,455,051	6,860,061	581,853	313,224	139,254

[1]This total is the amount prior to imputation for nonrespondents.

[2]Item 1A measures the amount of R&D expenditures passed through the institution to subrecipients.

[3]Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data passed through to subrecipients.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

ITEM 1B ANALYSIS

Because this item is so closely related to item 1A, it will appear in these technical notes in much the same manner. In addition to the following summary and tables, NSF is including two ranking tables in the section A tables based on item 1B data.

This item was completed by 87.8 percent of the respondents. The total R&D expenditures received as subrecipients, $1.8 billion, represented 6.9 percent of the item 1B respondents' total R&D expenditures and 5.4 percent of all separately budgeted R&D in FY 2001 (table 3). The doctorate-granting institutions reported a lower percentage of funds received as subrecipients than the nondoctorate-granting institutions. Item 1B respondents from doctorate-granting institutions reported that $1.7 billion (6.9 percent) of their total R&D expenditures were received as subrecipients, versus $43 million (10.4 percent) of item 1B nondoctorate-granting respondents. Item 1B respondents from private institutions reported a slightly higher percentage (7.1 percent) of funds received as subrecipients than those from public institutions (6.8 percent).

Respondents to this question reported $1.5 billion in Federal R&D funds received as subrecipients. This amount represented 10.1 percent of the Federal support reported by item 1B respondents and 7.9 percent of the $19 billion in total Federal support (table 4).

Table A-8 shows the total amount of R&D expenditures received as subrecipients for the 100 institutions reporting the highest amounts. Table A-9 shows the total amount of Federal R&D expenditures received as subrecipients for the 100 institutions reporting the highest amounts.

Table 3. **FY 2001 item 1B summary of total academic R&D expenditures**

Highest degree and control	All respondents' total R&D[1]	Item 1B respondents' total R&D[2]	Total R&D expenditures received as a subrecipient		
			Total[3]	Higher education pass-through entities	Other pass-through entities
	[Dollars in thousands]				
All academic institutions.....	32,570,113	25,328,434	1,753,204	724,162	753,344
Doctorate.....	32,106,175	24,912,500	1,709,998	707,371	726,929
Non-doctorate.....	463,938	415,934	43,206	16,791	26,415
Public.....	22,245,928	16,418,956	1,118,490	470,463	509,582
Private.....	10,324,185	8,909,478	634,714	253,699	243,762

[1]This total is the amount prior to imputation for nonrespondents.

[2]Item 1B measures the amount of R&D expenditures received by the institution as a subrecipient.

[3]Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data received as subrecipients.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table 4. **FY 2001 item 1B summary of Federal academic R&D expenditures**

Highest degree and control	All respondents' Federal R&D[1]	Item 1B respondents' Federal R&D[2]	Federal R&D expenditures received as a subrecipient		
			Total[3]	Higher education pass-through entities	Other pass-through entities
	[Dollars in thousands]				
All academic institutions.....	19,077,450	15,028,929	1,512,911	644,585	673,854
Doctorate.....	18,786,515	14,767,351	1,479,151	631,764	652,915
Non-doctorate.....	290,935	261,578	33,760	12,821	20,939
Public.....	11,622,399	8,625,987	947,616	418,950	451,659
Private.....	7,455,051	6,402,942	565,295	224,635	222,195

[1]This total is the amount prior to imputation for nonrespondents.

[2]Item 1B measures the amount of R&D expenditures received by the institution as a subrecipient.

[3]Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data received as subrecipients.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Response Rate

The FY 2001 survey questionnaires were e-mailed in November 2001. Respondents could choose to print and submit a pdf questionnaire from the Web or use a Web data collection system to respond to the survey. Every effort was made to maintain close contact with respondents in order to preserve both consistency and continuity in the resultant data. Questionnaires were carefully examined for completeness upon receipt. Computerized facsimiles of the survey data were then prepared for each institution, comparing the current and 2 prior years of data and noting any substantive disparities. A personalized e-mail message was sent to the respondents so they could provide revisions before final processing and tabulation of the data. The e-mail message included a Web link to the academic R&D expenditures Web-based data collection system, allowing respondents to view and correct their data via the Web.

Respondents were asked to explain significant discrepancies between current and prior years' reporting patterns previously verified as correct. They were encouraged to correct prior years' data if anomalies were identified. When updated or amended figures covering past years were submitted, NSF changed trend data in this report and the underlying micro-data database correspondingly. Similarly, if a respondent institution underwent an organizational change, such as a merger, NSF incorporated the effects of such changes into prior years' data.

By the survey closing date at the beginning of October 2002, forms had been received from 580 universities and colleges out of the academic population of 609, resulting in a 95.2 percent response rate. Responses were received from 97.5 percent of all doctorate-granting institutions, where 98.4 percent of the estimated national R&D expenditures in S&E fields was disbursed. Also, forms were received from all of the 16 FFRDCs. Table A-1 displays a detailed breakdown of the response rates by highest degree granted.

National Total and Imputation

To provide a national estimate for all universities and colleges performing R&D in FY 2001, it was necessary to implement two statistical procedures. First, data were estimated by "imputation" for the 29 institutions that had not responded by the closing date of the survey, using imputation techniques that have been used consistently since FY 1976. Second, data were also imputed for universities and colleges that submitted only partial responses. The imputed total was $153 million, or 0.5 percent of the $33 billion total R&D expenditures, as shown in table A-2.

Tables A-3a and A-3b present breakdowns of the total and Federal imputed amounts by S&E fields. The dollar amount imputed is displayed along with the percentage it represents of the national estimate for universities and colleges in a particular field. The amount imputed is similarly broken down by source of funds in table A-4.

A number of surveyed institutions have responded only intermittently in past years, providing data one year, not responding for one or more subsequent years, and then providing data again. For the years in which no response was received, data have been imputed as previously described. Although the imputation algorithm accurately reflects national trends, it cannot account for specific trends at individual institutions. For this reason a separate backcasting of prior years' data was performed, following current-year imputation.

For each institution, formerly imputed key variables for items 1 through 3 were recomputed to ensure that the imputed data accurately represent the growth patterns shown by reported data. If data were reported for fiscal years 1996 and 2001 but not for the intervening years, for example, the difference between the reported figures for each item total was calculated and evenly distributed across the intervening years (1997–2000). The new figures were spread across disciplines (items 2 and 3) or sources of support (item 1) on the basis of the most recent reporting pattern. A clean facsimile was generated for each of the institutions undergoing these procedures and returned to the school for comment. These procedures result in much more consistent reporting trends for individual institutions but have little effect upon aggregate figures reflecting national totals.

Changes in Basic Research Totals

The Division of Science Resources Statistics regularly reviews the methodologies used in its Survey of Research and Development Expenditures at Universities and Colleges with the goal of producing the

most accurate statistics possible for researchers and policy makers. A recent review of responses to the survey's item requesting the percentage of total and Federal research funds that are basic research[1] determined that the aggregate statistics could be improved by refining the imputation methodology for the item. For a number of reasons some universities and colleges are either unable or unwilling to respond to this item. Values must be imputed for them in order to present aggregate statistics.

In the past, if a respondent did not reply to the basic research items, the prior year's basic research share (whether reported by or imputed for the respondent) was carried forward. Interviews with respondents revealed that in some cases abnormal or erroneous values (such as zero percent basic research) were imputed forward for several years. The revised imputation methodology carries forward the prior year's basic research share only if that year's data were reported or estimated by the respondent. In all other cases an econometric model is used to impute the amount of total and Federal basic research for the respondent. The model employed takes into account differences between public and private institutions and non-Federal sources of R&D funding. Basic research statistics were reestimated for FY 1998 and forward. See table 5 for a summary of the changes the revised imputation methodology makes in the aggregate basic research totals, and tables B-2 and B-2a for the total and federally-financed basic research time series.

Data Anomalies

Aggregate academic expenditure data are generally consistent from year to year, although data for individual institutions may vary considerably. Data anomalies may reflect true increases or decreases in expenditures or may

Table 5. **Academic basic research, before and after corrections and revised imputation methodology**

Type of expenditure	Expenditures				Basic research expenditures as percentage of corresponding R&D expenditures			
	1997	1998	1999	2000	1997	1998	1999	2000
	(in millions of dollars)				(percent)			
Total R&D	24,363	25,848	27,505	30,042	-	-	-	-
Federal R&D	14,309	15,145	16,071	17,508	-	-	-	-
Non-Federal R&D	10,054	10,703	11,434	12,534	-	-	-	-
Before corrections and revisions[1]								
Total basic research	16,593	17,445	18,931	20,791	68.1	67.5	68.8	69.2
Federal basic research	10,310	10,915	11,865	12,930	72.1	72.1	73.8	73.9
Non-Federal basic research	6,283	6,530	7,066	7,861	62.5	61.0	61.8	62.7
After corrections and revisions[2]								
Total basic research	-	19,061	20,332	22,416	-	73.7	73.9	74.6
Federal basic research	-	11,844	12,630	13,808	-	78.2	78.6	78.9
Non-Federal basic research	-	7,217	7,702	8,608	-	67.4	67.4	68.7

[1] Data in this category reflect basic research totals as reported in the *Academic Research and Development Expenditures: Fiscal Year 2000* report.

[2] Differences between data in this category and data in the previous category are the result of both respondent corrections to prior-reported data as well as the implementation of a revised imputation methodology for the basic research items.

KEY: R&D = Research and development; - = Not applicable.

NOTES: Total R&D figures reflect respondent corrections from the 2001 survey cycle and therefore differ slightly from the figures published in the *Academic Research and Development Expenditures: Fiscal Year 2000* report.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Academic Research and Development

[1]Basic research is defined on the survey as research "directed toward an increase of knowledge; it is research where the primary aim of the investigator is a fuller knowledge or understanding of the subject under study rather than a specific application thereof."

be the result of changes in reporting methodology. None were reported in FY 2001.

State Tables

The detailed statistical tables showing R&D expenditures at individual institutions by State provide detailed campus listings by control and source of funds in table B-29 and by control and science and engineering field in table B-31.

Highest Degree-Granted Tables

Several longitudinal tables display data for institutions whose highest S&E degree granted is at the doctoral level. In tables produced prior to FY 1992, it would have been difficult to identify whether changes in yearly R&D expenditures were caused by changes in expenditure levels or in the number of doctorate-granting institutions. In order to maintain a consistent group of institutions across all years, the highest degree-granted status for each institution is based on the highest degree granted in the most recent year, FY 2001.

Data Availability

Data from this survey and previous reports are available on the World Wide Web at http://www.nsf.gov/sbe/srs/rdexp/.

Selected data items for institutions are available on the Web at http://www.nsf.gov/sbe/srs/profiles/ start.htm. The institutional profiles cover data from this survey as well as data collected in NSF's other academic S&E surveys: the Survey of Graduate Students and Post-doctorates in Science and Engineering (graduate student survey) and the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (Federal S&E support survey). The profiles are also linked to the corresponding ranking table of each survey.

Data for these and other surveys are available through the Web-Based Computer-Aided Science Policy Analysis and Research (WebCASPAR) database system, which provides an extensive and growing data library with multiyear statistics on the state of higher education in general and on academic S&E resources specifically. This data library is based on a set of standard institutional and field-of-science definitions across the multiple sources used to develop the database. The WebCASPAR program includes built-in help capabilities to facilitate the use and interpretation of the data. The latest version of WebCASPAR can be accessed via the Web at http://caspar.nsf.gov/webcaspar.

WebCASPAR data are drawn from a number of sources. All data are available for individual institutions, by State, and at the national level. Longitudinal data from surveys of universities and colleges conducted by the NSF Division of Science Resources Statistics include the academic R&D expenditures survey, the Federal S&E support survey, and the graduate student survey. Data from the surveys of universities and colleges conducted by the National Center for Education Statistics include earned degrees, opening fall enrollment, tuition, faculty salaries, tenure and fringe benefits, and financial statistics.

SECTION A.

TABLES

SECTION A TABLES

Table A-1. Response rates for the academic research and development expenditures survey, by respondent type and highest degree granted: fiscal year 2001

Respondent type and highest degree granted	Number in survey universe	Number of complete responses	Number of partial responses	Total number of responses	Response rate
Total	625	482	114	596	95.4
Universities and colleges	609	466	114	580	95.2
Doctorate	359	292	58	350	97.5
Master's	158	112	36	148	93.7
Bachelor's and below	92	62	20	82	89.1
Academically-administered FFRDCS	16	16	0	16	100.0

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-2. Imputed amounts for total research and development expenditures at universities and colleges, by highest degree granted: fiscal year 2001

[Dollars in millions]

Highest degree granted	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	32,723	153	0.5
Doctorate granting institutions	32,214	107	0.3
Non-doctorate granting institutions	509	46	8.9

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-3a. Imputed amounts for total research and development expenditures at universities and colleges, by science and engineering field: fiscal year 2001

[Dollars in millions]

Science and engineering field	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	32,723	153	0.5
Engineering	5,000	28	0.6
Aeronautical and astronautical	339	34	10.0
Bioengineering/biomedical	211	13	6.1
Chemical	414	11	2.6
Civil	667	10	1.6
Electrical	1,160	102	8.8
Mechanical	685	72	10.5
Metallurgical and materials	451	1	0.3
Other, n.e.c.	1,073	108	10.1
Physical sciences	2,800	19	0.7
Astronomy	378	2	0.4
Chemistry	1,007	8	0.8
Physics	1,237	11	0.8
Other, n.e.c.	179	1	0.4
Environmental sciences	1,827	16	0.9
Atmospheric	300	19	6.3
Earth sciences	553	29	5.3
Oceanography	674	36	5.4
Other, n.e.c.	299	41	13.8
Mathematical sciences	357	6	1.8
Computer sciences	954	7	0.7
Life sciences	19,189	81	0.4
Agricultural sciences	2,318	18	0.8
Biological sciences	5,944	33	0.6
Medical sciences	10,177	28	0.3
Other, n.e.c.	751	5	0.6
Psychology	582	2	0.3
Social sciences	1,436	17	1.2
Economics	271	5	1.8
Political science	252	2	0.8
Sociology	327	8	2.4
Other, n.e.c.	585	3	0.5
Other sciences, n.e.c.	579	28	4.8

KEY: n.e.c. = not elsewhere classified

NOTES: The imputation rate at the total level is lower than the imputation rates at the S&E field levels because many institutions could provide totals but not the S&E field details.

Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-3b. Imputed amounts for federally financed research and development expenditures at universities and colleges, by science and engineering field: fiscal year 2001

[Dollars in millions]

Science and engineering field	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	19,191	113	0.6
Engineering	2,844	20	0.7
Aeronautical and astronautical	254	32	12.6
Bioengineering/biomedical	121	10	8.5
Chemical	215	9	4.2
Civil	271	7	2.7
Electrical	725	98	13.5
Mechanical	416	66	15.8
Metallurgical and materials	240	1	0.5
Other, n.e.c.	602	103	17.1
Physical sciences	1,972	13	0.7
Astronomy	260	1	0.4
Chemistry	660	4	0.7
Physics	926	8	0.9
Other, n.e.c.	126	0	0.1
Environmental sciences	1,183	12	1.0
Atmospheric	232	18	7.6
Earth sciences	328	24	7.3
Oceanography	448	32	7.1
Other, n.e.c.	175	34	19.7
Mathematical sciences	241	5	2.0
Computer sciences	643	6	0.9
Life sciences	11,179	60	0.5
Agricultural sciences	613	12	2.0
Biological sciences	3,872	25	0.7
Medical sciences	6,249	22	0.3
Other, n.e.c.	445	3	0.6
Psychology	398	1	0.3
Social sciences	544	11	2.1
Economics	90	5	5.1
Political science	72	1	1.5
Sociology	148	5	3.4
Other, n.e.c.	234	1	0.4
Other sciences, n.e.c.	187	13	6.9

KEY: n.e.c. = not elsewhere classified

NOTES: The imputation rate at the total level is lower than the imputation rates at the S&E field levels because many institutions could provide totals but not the S&E field details.

Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-4. Imputed amounts for research and development expenditures at universities and colleges, by source of funds: fiscal year 2001

[Dollars in millions]

Source of funds	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	32,723	153	0.5
Federal Government	19,191	113	0.6
State and local government	2,315	7	0.3
Industry	2,234	12	0.5
Institutional funds	6,553	17	0.3
All other sources	2,430	10	0.4

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-5. Number of surveyed institutions for the academic research and development expenditures survey, by respondent type and highest degree granted: fiscal years 1996-2001

Respondent type and highest degree granted	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total	511	511	572	614	639	625
Universities and colleges	493	493	555	597	623	609
Doctorate	343	343	357	359	362	359
Master's	84	84	118	148	162	158
Bachelor's and below	66	66	80	90	99	92
Academically-administered FFRDCS	18	18	17	17	16	16

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-6. Total amount of R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures passed through[1]	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
Total, all institutions	32,723,078	1,626,981	793,483	553,516
1 Stanford University	482,906	53,134	--	--
2 Duke University	375,133	46,880	24,716	22,164
3 Harvard University	372,107	44,898	14,534	30,364
4 Columbia U in City of NY	354,497	41,382	23,174	18,208
5 University of Colorado	365,472	39,628	13,607	26,021
6 U of Southern California	340,597	37,614	20,458	17,156
7 U of MD at College Park	267,383	37,357	0	37,357
8 U of Pennsylvania	469,852	33,620	21,428	12,192
9 California Inst of Tech	215,085	32,031	32,031	0
10 University of Michigan	600,523	28,633	19,754	8,879
Total, 1st 10 institutions	3,843,555	395,177	169,702	172,341
11 University of Minnesota	462,011	28,567	--	--
12 University of Arizona	367,128	28,460	16,118	12,342
13 U of NC Chapel Hill	303,576	28,237	11,637	16,600
14 U of WI-Madison	604,143	27,638	18,487	9,151
15 U of IL Urbana-Champaign	390,863	26,078	22,146	3,932
16 Ohio State University	390,652	24,199	7,577	16,622
17 Baylor Col of Medicine	381,461	23,984	20,072	3,912
18 Yale University	321,514	23,648	--	--
19 Northwestern University	257,933	23,517	--	--
20 University of Pittsburgh	348,792	20,949	11,313	9,636
Total, 1st 20 institutions	7,671,628	650,454	277,052	244,536
21 MA Institute of Tech	435,495	19,880	9,702	10,178
22 UT Houston Hlth Sci Ctr	125,439	18,334	11,048	7,286
23 Cornell University	443,828	17,281	--	--
24 Georgia Institute of Tech	306,533	17,016	--	--
25 Washington University	406,642	16,898	11,289	5,609
26 University of Chicago	194,125	16,427	11,898	4,529
27 U of Alabama Birmingham	231,702	16,340	--	--
28 U Mississippi, All Camp	39,552	15,192	10,410	4,782
29 University of Florida	359,312	14,651	13,186	1,465
30 NC State University	299,259	13,529	7,076	6,453
Total, 1st 30 institutions	10,513,515	816,002	351,661	284,838
31 Purdue University	254,917	13,104	9,187	3,917
32 Carnegie Mellon U	144,882	12,703	6,589	6,114
33 U of South Florida	171,550	12,657	--	--
34 New Mexico State Univ	86,963	12,644	2,166	10,478
35 University of Rochester	234,261	12,452	6,213	6,239
36 George Washington U	73,805	12,315	12,315	0
37 Boston University	172,031	11,189	6,743	4,446
38 U TX SW Med Ctr at Dallas	222,376	10,984	1,609	9,375
39 University of Miami	153,772	10,982	4,723	6,259
40 University of Utah	197,597	10,940	6,017	4,923
Total, 1st 40 institutions	12,225,669	935,972	407,223	336,589

See explanatory information and SOURCE at end of table.

Table A-6. Total amount of R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures passed through[1]	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
41 Mt Sinai Sch Med	176,946	10,879	10,879	0
42 Emory University	236,997	10,827	8,110	2,717
43 Rutgers the State U NJ	236,793	10,749	7,479	3,270
44 Case Western Reserve U	198,253	10,580	10,580	0
45 Vanderbilt University	186,504	10,576	8,221	2,355
46 Indiana University	259,899	10,543	4,993	5,550
47 Louisiana State U System	268,911	10,511	4,741	5,770
48 University of Oklahoma	148,695	10,391	2,037	8,354
49 U of New Hampshire	87,879	10,269	--	--
50 Mississippi State U	146,939	10,240	8,431	1,809
Total, 1st 50 institutions	14,173,485	1,041,537	472,694	366,414
51 U of Iowa	255,348	10,160	--	--
52 U TX at Austin	295,104	10,069	5,233	4,836
53 VA Polytech Inst & St U	216,323	9,753	5,822	3,931
54 Michigan State University	265,946	9,739	7,343	2,396
55 University of Georgia	272,298	9,684	--	--
56 U of IL Chicago	233,098	9,210	4,855	4,355
57 University of Virginia	149,547	9,091	5,287	3,804
58 Oregon State University	153,925	8,976	6,094	2,882
59 U of Alaska Fairbanks	110,195	8,762	--	--
60 Princeton University	149,411	8,647	5,633	3,014
Total, 1st 60 institutions	16,274,680	1,135,628	512,961	391,632
61 Wake Forest University	98,343	8,585	--	--
62 New York University	190,722	8,456	5,953	2,503
63 U TX MD Anderson Cncr Ctr	212,746	8,408	5,899	2,509
64 Oregon Health & Science U	136,785	8,262	3,438	4,824
65 University of Cincinnati	192,895	7,874	3,730	4,144
66 University of Kentucky	211,721	7,867	7,867	0
67 Dartmouth College	109,096	7,808	4,018	3,790
68 Arizona State University	118,763	7,739	3,202	4,537
69 Auburn University	106,347	7,739	5,372	2,367
70 University of Kansas	156,467	7,736	5,094	2,642
Total, 1st 70 institutions	17,808,565	1,216,102	557,534	418,948
71 SUNY at Stony Brook	168,487	7,642	--	--
72 University of Louisville	72,857	7,558	4,534	3,024
73 Eastern VA Med School	26,250	7,551	2,341	5,210
74 Florida State University	113,817	7,355	2,678	4,677
75 NJ Inst of Technology	44,177	7,277	7,277	0
76 Yeshiva University	148,230	7,232	7,232	0
77 University of Connecticut	164,366	6,921	4,501	2,420
78 U TX Hlth Sci Ctr San Ant	115,154	6,604	540	6,064
79 U of Nebraska at Lincoln	157,520	6,535	4,476	2,059
80 U Med & Dent of NJ	162,417	6,449	6,449	0
Total, 1st 80 institutions	18,981,840	1,287,226	597,562	442,402

See explanatory information and SOURCE at end of table.

Table A-6. Total amount of R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures passed through[1]	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
81 Drexel University	27,698	6,337	--	--
82 U of Nevada Las Vegas	27,008	6,325	--	--
83 University of Alabama, The	33,133	6,325	5,140	1,185
84 University of New Mexico	156,619	6,210	5,154	1,056
85 SUNY Hlth Sci Ctr Brklyn	31,626e	5,973e	5,973e	0e
86 Med U of South Carolina	116,687	5,905	1,603	4,302
87 University of Dayton	41,343	5,795	753	5,042
88 Wayne State University	175,984	5,726	2,947	2,779
89 U of Missouri Columbia	174,782	5,601	2,912	2,689
90 SUNY at Buffalo	186,829	5,540	4,483	1,057
Total, 1st 90 institutions	19,953,549	1,346,963	626,527	460,512
91 Montana St U Bozeman	69,593	5,474	--	--
92 Washington State U	107,937	5,473	3,576	1,897
93 Brown University	91,636	5,304	--	--
94 Rice University	42,675	5,204	4,819	385
95 Tulane University	99,761	5,178	3,583	1,595
96 U MA Worcester	111,221	5,134	5,134	0
97 S Illinois U Carbondale	43,207	5,107	1,383	3,724
98 San Diego St University	58,332	5,059	2,739	2,320
99 Florida International U	44,291	4,811	527	4,284
100 U TX at El Paso	21,889	4,683	2,642	2,041
Total, 1st 100 institutions	20,644,091	1,398,390	650,930	476,758
Total, all other sampled institutions	12,078,987	228,591	142,553	76,758

[1] Only the top 100 institutions that reported the largest amount of passed through funds are shown in this table.

KEY: -- = not available
e = estimated

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D Federal expenditures passed through [1]	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
Total, all institutions	19,190,873	1,379,918	707,462	437,576
1 Stanford University	384,468	51,075	--	--
2 Columbia U in City of NY	317,928	40,758	22,824	17,934
3 University of Colorado	308,643	38,440	13,213	25,227
4 Harvard University	300,414	35,315	13,533	21,782
5 U of Southern California	246,207	33,726	18,552	15,174
6 California Inst of Tech	193,554	32,031	32,031	0
7 U of Pennsylvania	351,996	28,202	16,010	12,192
8 U of NC Chapel Hill	221,615	27,650	11,253	16,397
9 U of MD at College Park	145,515	27,581	0	27,581
10 University of Minnesota	264,289	26,216	--	--
Total, 1st 10 institutions	2,734,629	340,994	127,416	136,287
11 U of WI-Madison	304,009	24,900	16,931	7,969
12 University of Arizona	199,484	24,481	13,974	10,507
13 Duke University	218,109	23,490	23,490	0
14 University of Michigan	396,117	23,403	16,122	7,281
15 Baylor Col of Medicine	234,394	23,283	19,548	3,735
16 U of IL Urbana-Champaign	195,316	22,785	19,123	3,662
17 Yale University	250,702	20,869	--	--
18 University of Pittsburgh	268,571	18,345	9,356	8,989
19 Ohio State University	161,092	18,301	6,618	11,683
20 Northwestern University	158,129	17,776	--	--
Total, 1st 20 institutions	5,120,552	558,627	252,578	190,113
21 UT Houston Hlth Sci Ctr	88,545	17,047	9,899	7,148
22 Cornell University	240,466	16,617	--	--
23 MA Institute of Tech	304,319	15,506	8,011	7,495
24 U of Alabama Birmingham	194,625	15,386	--	--
25 Washington University	284,928	15,333	10,833	4,500
26 University of Chicago	155,566	15,220	10,858	4,362
27 U Mississippi, All Camp	30,108	15,192	10,410	4,782
28 Carnegie Mellon U	97,463	12,037	6,344	5,693
29 University of Florida	139,744	11,971	10,774	1,197
30 New Mexico State Univ	61,124	11,797	2,076	9,721
Total, 1st 30 institutions	6,717,440	704,733	321,783	235,011
31 Boston University	150,771	11,189	6,743	4,446
32 U TX SW Med Ctr at Dallas	131,820	10,984	1,609	9,375
33 Mt Sinai Sch Med	109,344	10,879	10,879	0
34 University of Utah	127,253	10,798	5,939	4,859
35 Purdue University	98,151	10,741	8,589	2,152
36 George Washington U	51,757	10,678	10,678	0
37 Emory University	170,317	10,396	7,897	2,499
38 University of Oklahoma	60,264	10,391	2,037	8,354
39 Mississippi State U	65,493	10,151	8,378	1,773
40 Case Western Reserve U	158,852	10,114	10,114	0
Total, 1st 40 institutions	7,841,462	811,054	394,646	268,469

See explanatory information and SOURCE at end of table.

Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D Federal expenditures passed through [1]	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
41 Rutgers the State U NJ	77,156	9,816	6,546	3,270
42 U of South Florida	58,826	9,790	--	--
43 U of New Hampshire	45,223	9,443	--	--
44 Vanderbilt University	146,230	9,129	7,517	1,612
45 Louisiana State U System	94,625	9,097	3,747	5,350
46 Indiana University	116,781	8,993	4,330	4,663
47 U of Iowa	155,249	8,889	--	--
48 Michigan State University	112,359	8,601	7,179	1,422
49 U TX MD Anderson Cncr Ctr	94,053	8,408	5,899	2,509
50 New York University	129,897	8,256	5,941	2,315
Total, 1st 50 institutions	8,871,861	901,476	435,805	289,610
51 VA Polytech Inst & St U	77,384	8,201	5,601	2,600
52 University of Rochester	166,945	8,155	5,393	2,762
53 Wake Forest University	78,021	8,110	--	--
54 University of Virginia	122,868	8,043	4,826	3,217
55 NC State University	95,875	7,991	3,925	4,066
56 University of Cincinnati	128,049	7,857	3,722	4,135
57 University of Georgia	66,913	7,690	--	--
58 Oregon Health & Science U	111,671	7,663	3,160	4,503
59 U TX at Austin	195,184	7,519	4,610	2,909
60 U of Alaska Fairbanks	55,287	7,483	--	--
Total, 1st 60 institutions	9,970,058	980,188	467,042	313,802
61 Auburn University	40,097	7,343	5,105	2,238
62 Yeshiva University	107,800	7,232	7,232	0
63 Arizona State University	56,616	7,109	3,083	4,026
64 Dartmouth College	69,844	6,898	3,812	3,086
65 SUNY at Stony Brook	93,265	6,691	--	--
66 U TX Hlth Sci Ctr San Ant	71,153	6,604	540	6,064
67 U of Nebraska at Lincoln	43,877	6,524	4,468	2,056
68 University of Miami	111,803	6,467	3,304	3,163
69 University of Kansas	74,494	6,457	4,451	2,006
70 U Med & Dent of NJ	86,054	6,449	6,449	0
Total, 1st 70 institutions	10,725,061	1,047,962	505,486	336,441
71 Florida State University	57,075	6,428	2,556	3,872
72 Princeton University	78,620	6,343	4,754	1,589
73 Drexel University	20,159	6,337	--	--
74 University of Kentucky	86,239	6,010	6,010	0
75 U of Nevada Las Vegas	15,681	5,996	--	--
76 University of Connecticut	70,013	5,991	4,209	1,782
77 University of New Mexico	109,505	5,943	5,125	818
78 SUNY Hlth Sci Ctr Brklyn	22,860e	5,896e	5,896e	0e
79 U of IL Chicago	125,109	5,707	3,614	2,093
80 University of Dayton	34,102	5,655	735	4,920
Total, 1st 80 institutions	11,344,424	1,108,268	538,385	351,515

See explanatory information and SOURCE at end of table.

Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D Federal expenditures passed through [1]	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
81 Med U of South Carolina	60,543	5,630	1,603	4,027
82 Oregon State University	84,854	5,572	3,358	2,214
83 U of Missouri Columbia	68,435	5,070	2,636	2,434
84 Rice University	35,682	5,068	4,683	385
85 Wayne State University	79,448	5,008	2,754	2,254
86 U MA Worcester	79,453	4,968	4,968	0
87 University of Alabama, The	22,183	4,961	4,447	514
88 Brown University	58,367	4,915	--	--
89 SUNY at Buffalo	96,595	4,897	3,916	981
90 Tulane University	55,669	4,767	3,559	1,208
Total, 1st 90 institutions	11,985,653	1,159,124	570,309	365,532
91 Montana St U Bozeman	34,857	4,632	--	--
92 Rockefeller U, The	55,362	4,480	4,480	0
93 NJ Inst of Technology	18,530	4,468	4,468	0
94 U TX at El Paso	16,167	4,385	2,642	1,743
95 U TX Med Br at Galveston	64,682	4,322	2,915	1,407
96 Washington State U	48,660	4,305	2,708	1,597
97 NM Inst Mining & Tech	13,255	4,179	786	3,393
98 Rush University	37,301	4,134	4,134	0
99 West Virginia University	29,440	3,931	1,889	2,042
100 U MD Biotechnology Inst	11,053	3,930	3,759	171
Total, 1st 100 institutions	12,314,960	1,201,890	598,090	375,885
Total, all other sampled institutions	6,875,913	178,028	109,372	61,691

[1] Only the top 100 institutions that reported the largest amount of passed through funds are shown in this table.

KEY: -- = not available
e = estimated

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-8. Total amount of R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures received[1]	Total R&D expenditures	Total R&D expenditures received as a subrecipient
Total, all institutions	32,723,078	1,753,204
1 Texas A&M University	407,041	61,139
2 MA Institute of Tech	435,495	54,303
3 University of Michigan	600,523	48,162
4 Stanford University	482,906	47,201
5 Ohio State University	390,652	40,559
6 U of WI-Madison	604,143	34,688
7 U of Southern California	340,597	32,482
8 University of Colorado	365,472	31,270
9 Harvard University	372,107	31,252
10 Columbia U in City of NY	354,497	30,439
Total, 1st 10 institutions	4,353,433	411,495
11 U TX at Austin	295,104	30,047
12 U of IL Urbana-Champaign	390,863	28,723
13 Georgia Institute of Tech	306,533	28,679
14 Rutgers the State U NJ	236,793	26,743
15 California Inst of Tech	215,085	26,465
16 Cornell University	443,828	26,247
17 University of Minnesota	462,011	26,137
18 Washington University	406,642	23,153
19 University of Pittsburgh	348,792	22,635
20 Mt Sinai Sch Med	176,946	22,000
Total, 1st 20 institutions	7,636,030	672,324
21 University of Arizona	367,128	21,874
22 U of South Carolina	109,973	19,847
23 Northwestern University	257,933	19,775
24 University of Florida	359,312	19,638
25 U of Alaska Fairbanks	110,195	19,570
26 University of New Mexico	156,619	18,681
27 University of Rochester	234,261	18,500
28 U of Alabama Birmingham	231,702	17,451
29 Florida State University	113,817	16,823
30 Yale University	321,514	16,163
Total, 1st 30 institutions	9,898,484	860,646
31 University of Utah	197,597	15,698
32 Duke University	375,133	15,563
33 U of NC Chapel Hill	303,576	15,306
34 University of Chicago	194,125	15,097
35 University of Kentucky	211,721	14,483
36 Arizona State University	118,763	14,265
37 VA Polytech Inst & St U	216,323	13,977
38 New York University	190,722	13,841
39 Auburn University	106,347	13,678
40 Carnegie Mellon U	144,882	13,259
Total, 1st 40 institutions	11,957,673	1,005,813

See explanatory information and SOURCE at end of table.

Table A-8. Total amount of R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures received[1]	Total R&D expenditures	Total R&D expenditures received as a subrecipient
41 Boston University	172,031	12,726
42 U of IL Chicago	233,098	12,696
43 Case Western Reserve U	198,253	12,537
44 Indiana University	259,899	12,263
45 Michigan State University	265,946	11,898
46 Tulane University	99,761	11,700
47 Baylor Col of Medicine	381,461	11,260
48 Louisiana State U System	268,911	10,997
49 Vanderbilt University	186,504	10,843
50 U of Nebraska at Lincoln	157,520	10,596
Total, 1st 50 institutions	14,181,057	1,123,329
51 Oregon State University	153,925	10,470
52 Montana St U Bozeman	69,593	10,439
53 University of Connecticut	164,366	9,965
54 U of Nevada Reno	59,229	9,772
55 U of MD at College Park	267,383	9,377
56 Mississippi State U	146,939	8,715
57 Emory University	236,997	8,673
58 U of Missouri Columbia	174,782	8,602
59 SUNY at Stony Brook	168,487	8,445
60 U TX MD Anderson Cncr Ctr	212,746	8,200
Total, 1st 60 institutions	15,835,504	1,215,987
61 U of Maine	64,070	8,158
62 University of Cincinnati	192,895	8,038
63 University of Delaware	77,491	7,995
64 Temple University	60,182	7,799
65 University of Kansas	156,467	7,723
66 Catholic U of America	17,539	7,684
67 Wayne State University	175,984	7,635
68 Oregon Health & Science U	136,785	7,444
69 New Mexico State Univ	86,963	7,332
70 U Southern Mississippi	20,286	7,220
Total, 1st 70 institutions	16,824,166	1,293,015
71 U TX Hlth Sci Ctr San Ant	115,154	7,126
72 University of Miami	153,772	7,087
73 UT Houston Hlth Sci Ctr	125,439	7,018
74 U of Alabama Huntsville	43,731	6,959
75 Oklahoma State University	90,311	6,929
76 Rice University	42,675	6,895
77 MCP Hahnemann University	32,462	6,529
78 Rush University	70,219	6,475
79 Brown University	91,636	6,228
80 U of Central Florida	79,287	6,100
Total, 1st 80 institutions	17,668,852	1,360,361

See explanatory information and SOURCE at end of table.

Table A-8. Total amount of R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures received[1]	Total R&D expenditures	Total R&D expenditures received as a subrecipient
81 Rockefeller U, The	145,571	6,057
82 University of Alabama, The	33,133	5,944
83 Syracuse University	42,476	5,917
84 U of New Hampshire	87,879	5,895
85 Portland State University	16,838	5,881
86 Desert Research Institute	29,697	5,864
87 Dartmouth College	109,096	5,770
88 Woods Hole Oceanogr Inst	91,029	5,615
89 NM Inst Mining & Tech	28,392	5,579
90 Jackson State University	25,663	5,505
Total, 1st 90 institutions	18,278,626	1,418,388
91 Howard University	30,148	5,473
92 Washington State U	107,937	5,473
93 University of Oklahoma	148,695	5,461
94 George Washington U	73,805	5,410
95 University of Georgia	272,298	5,393
96 Rensselaer Polytech Inst	45,010	5,355
97 University of Louisville	72,857	5,305
98 Tufts University	105,806	5,166
99 Med U of South Carolina	116,687	5,086
100 Thomas Jefferson U	88,936	5,036
Total, 1st 100 institutions	19,340,805	1,471,546
Total, all other sampled institutions	13,382,273	281,658

[1] Only the top 100 institutions that reported the largest amount of R&D expenditures received as a subrecipient are shown in this table.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001

Table A-9. Total amount of Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of Federal R&D expenditures received [1]	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient
Total, all institutions	19,190,873	1,512,911
1 Texas A&M University	149,382	60,366
2 MA Institute of Tech	304,319	54,303
3 University of Michigan	396,117	45,419
4 Stanford University	384,468	41,490
5 U of WI-Madison	304,009	34,688
6 University of Colorado	308,643	31,152
7 U TX at Austin	195,184	30,047
8 Harvard University	300,414	29,509
9 Columbia U in City of NY	317,928	29,377
10 U of IL Urbana-Champaign	195,316	26,671
Total, 1st 10 institutions	2,855,780	383,022
11 California Inst of Tech	193,554	26,465
12 Cornell University	240,466	25,291
13 Rutgers the State U NJ	77,156	24,610
14 University of Minnesota	264,289	23,168
15 Washington University	284,928	22,557
16 U of Southern California	246,207	22,372
17 Mt Sinai Sch Med	109,344	22,000
18 University of Arizona	199,484	21,415
19 University of Pittsburgh	268,571	20,921
20 U of South Carolina	51,983	19,847
Total, 1st 20 institutions	4,791,762	611,668
21 University of New Mexico	109,505	18,681
22 U of Alabama Birmingham	194,625	17,451
23 Northwestern University	158,129	16,960
24 Florida State University	57,075	16,823
25 University of Rochester	166,945	16,233
26 Yale University	250,702	16,163
27 University of Florida	139,744	15,716
28 University of Utah	127,253	15,494
29 University of Chicago	155,566	15,097
30 University of Kentucky	86,239	14,483
Total, 1st 30 institutions	6,237,545	774,769
31 VA Polytech Inst & St U	77,384	13,977
32 U of NC Chapel Hill	221,615	13,923
33 Auburn University	40,097	13,678
34 Arizona State University	56,616	13,431
35 Carnegie Mellon U	97,463	13,023
36 Boston University	150,771	12,726
37 U of IL Chicago	125,109	12,696
38 Case Western Reserve U	158,852	12,537
39 Tulane University	55,669	11,612
40 Baylor Col of Medicine	234,394	11,260
Total, 1st 40 institutions	7,455,515	903,632

See explanatory information and SOURCE at end of table.

Table A-9. Total amount of Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of Federal R&D expenditures received [1]	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient
41 New York University	129,897	10,861
42 Vanderbilt University	146,230	10,726
43 U of Nebraska at Lincoln	43,877	10,527
44 Oregon State University	84,854	10,470
45 Michigan State University	112,359	10,189
46 Indiana University	116,781	9,998
47 University of Connecticut	70,013	9,965
48 U of Nevada Reno	31,386	9,772
49 Montana St U Bozeman	34,857	8,833
50 Mississippi State U	65,493	8,715
Total, 1st 50 institutions	8,291,262	1,003,688
51 U of Missouri Columbia	68,435	8,602
52 SUNY at Stony Brook	93,265	8,445
53 U TX MD Anderson Cncr Ctr	94,053	8,200
54 University of Delaware	41,830	7,995
55 Emory University	170,317	7,941
56 University of Kansas	74,494	7,723
57 University of Cincinnati	128,049	7,706
58 Catholic U of America	13,308	7,684
59 Wayne State University	79,448	7,635
60 New Mexico State Univ	61,124	7,332
Total, 1st 60 institutions	9,115,585	1,082,951
61 Oregon Health & Science U	111,671	7,134
62 UT Houston Hlth Sci Ctr	88,545	7,018
63 U Southern Mississippi	18,061	6,944
64 Rice University	35,682	6,895
65 U of Alabama Huntsville	30,625	6,794
66 U TX Hlth Sci Ctr San Ant	71,153	6,739
67 MCP Hahnemann University	22,944	6,529
68 University of Miami	111,803	6,508
69 Rush University	37,301	6,475
70 Oklahoma State University	25,636	6,411
Total, 1st 70 institutions	9,669,006	1,150,398
71 Brown University	58,367	6,228
72 U of Central Florida	22,342	6,100
73 University of Alabama, The	22,183	5,926
74 Dartmouth College	69,844	5,770
75 Portland State University	11,341	5,759
76 Woods Hole Oceanogr Inst	75,670	5,615
77 NM Inst Mining & Tech	13,255	5,579
78 Jackson State University	22,750	5,505
79 University of Georgia	66,913	5,393
80 Desert Research Institute	22,018	5,382
Total, 1st 80 institutions	10,053,689	1,207,655

See explanatory information and SOURCE at end of table.

Table A-9. Total amount of Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received: fiscal year 2001

[Dollars in thousands]

Institutions ranked by total amount of Federal R&D expenditures received [1]	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient
81 University of Louisville	25,116	5,305
82 Med U of South Carolina	60,543	5,086
83 Tufts University	71,669	5,013
84 U TX at El Paso	16,167	4,994
85 Temple University	41,643	4,939
86 Howard University	27,848	4,892
87 George Mason University	25,992	4,864
88 Thomas Jefferson U	64,881	4,853
89 University of Idaho	26,548	4,799
90 Kansas State University	33,998	4,764
Total, 1st 90 institutions	10,448,094	1,257,164
91 Michigan Tech University	17,620	4,693
92 Wake Forest University	78,021	4,673
93 U TX at Arlington	9,413	4,540
94 West Virginia University	29,440	4,519
95 Washington State U	48,660	4,305
96 U of Missouri Rolla	11,929	4,291
97 U of MA Amherst	49,576	4,251
98 New York Medical College	18,344	4,177
99 U of MD at College Park	145,515	4,074
100 U of Arkansas Main	23,172	4,012
Total, 1st 100 institutions	10,879,784	1,300,699
Total, all other sampled institutions	8,311,089	212,212

[1] Only the top 100 institutions that reported the largest amount of R&D expenditures received as a subrecipient are shown in this table.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 2001